## WHAT IS CLAIMED IS:

1. A microporous film manufactured by a process comprising the steps of :

a) molding a film with a mixed blend containing two or more of polyolefins by using a casting or film blowing;

b) manufacturing a microporous film by annealing and stretching the molded film; and

c) treating the surface of film by irradiation with ionizing radiation either before or after the pore formation.

2. A microporous film in accordance with claim 1, wherein the mixed blend comprises two or more of polyolefin mixtures having a melting point difference of over 10℃.

3. A microporous film in accordance with claim 1, wherein the mixed blend comprises a mixture in which polypropylene having a high melting point and polyethylene having a low melting point are mixed in a weight ratio ranging from 1:9 to 9:1.

4. A microporous film in accordance with claim 1, wherein the surface treatment of irradiation with ionizing radiation is performed on one side or on both sides of the film.

5. A microporous film in accordance with claim 1, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of the film by irradiating energized ion particles on the film under a vacuum.

6. A microporous film in accordance with claim 1, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of the film by the infusion of a reactive gas under a vacuum state by means of irradiating energized ion particles on the film

7. A microporous film in accordance with claim 5 or claim 6, wherein one or more of ion particles are selected from a group consisting of electrons, hydrogen, oxygen, helium, fluorine, neon, argon, krypton, air, and $N_2O$.

8. A microporous film in accordance with claim 6, wherein one or more of reactive gases are selected from a group consisting of hydrogen, oxygen, nitrogen, ammonia, carbon monoxide, carbon dioxide, carbon tetrafluoride, methane, and $N_2O$.

9. A microporous film in accordance with claim 1, wherein the ionizing radiation is selected from a group consisting of ions, gamma (γ) rays, plasma, and electron beams.

10. A method for manufacturing a microporous film manufactured by a process comprising the steps of:

a) molding a film with a mixed blend containing two or more of polyolefins by using a T-die extruder or film blowing;

b) manufacturing a microporous film by annealing and stretching the molded film; and

c) treating the surface of film by irradiation with ionizing radiation before or after the pore formation.

11. A method for manufacturing a microporous film in accordance with claim 10, wherein the mixed blend comprises two or more of polyolefin mixtures having a melting point difference of over 10℃.

12. A method for manufacturing a microporous film in accordance with claim 10, wherein the mixed blend comprises a mixture in which polypropylene having a high melting point and polyethylene having a low melting point are mixed in a weight ratio ranging from 1:9 to 9:1.

13. A method for manufacturing a microporous film in accordance with claim 10, wherein the surface treatment of irradiation with ionizing radiation is performed on one side or both sides of the film.

14. A method for manufacturing a microporous film in accordance with claim 10, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of a film by irradiating the film with energized ion particles under a vacuum.

15. A method for manufacturing a microporous film in accordance with claim 10, wherein the surface treatment irradiation with ionizing radiation improves the hydrophilicity and/or mechanical properties of a film by the infusion of a reactive gas under a vacuum state by means of the irradiation of the film with energized ion particles .

16. A method for manufacturing a microporous film in accordance with claim 14 or claim 15, wherein one or more of ion particles are selected from a group consisting of electrons, hydrogen, oxygen, helium, fluorine, neon, argon, krypton, air, and $N_2O$.

17. A method for manufacturing a microporous film in accordance with claim 15, wherein one or more of reactive gases are selected from a group consisting of hydrogen, oxygen, nitrogen, ammonia, carbon monoxide, carbon dioxide, carbon tetrafluoride, methane, and $N_2O$.

18. A method for manufacturing a microporous film in accordance with claim 10, wherein the ionizing radiation is selected from a group consisting of ions, gamma (γ) rays, plasma, and electron beams.

19. A lithium ion secondary battery separator or alkali secondary battery separator comprising a microporous film manufactured in accordance with claim 10.